

CLEAN COPY OF ALL PENDING CLAIMS AFTER AMENDMENT

Sub C1  
1. A single-use package for holding a powdered composition which forms a solution of an anti-microbial decontaminant when mixed with water and for releasing the composition when the package is opened or when the composition dissolves and passes through a porous portion of the package, the package comprising:

a porous portion which is impermeable to the powdered composition but is permeable to water and to the solution; and,

an indicator on the porous portion which exhibits a detectable change on exposure to the decontaminant in the solution.

2. The package of claim 1, further including:

a first compartment for receiving a first component of the composition; and,

a second compartment for receiving a second component of the composition, the porous portion, first compartment, and second compartment configured for forming a fluid flow path for the decontaminant solution through the package.

3. (Amended) The package of claim 2, wherein the cartridge further includes:

an outer, first cup including a first peripheral wall with an opening at an end, the first peripheral wall being at least selectively water transmissive;

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an inner, second cup including a second peripheral wall, the second peripheral wall having a detachable portion, the first and second cups being configured such that the second peripheral wall abuts and is connected to the first cup adjacent the end of the first peripheral wall;

a top cover covering the openings in the first and second cups, such that the first compartment is defined in

the first cup and the second compartment is defined in the second cup.

A1 4. (Amended) The package of claim 22, wherein the first peripheral wall includes a region which is formed from a first material which is impermeable to the first component but is permeable to water and to solutions  
5 containing dissolved components.

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5. The package of claim 3, wherein the first cup peripheral wall includes a side and a base, and wherein the base is detachable from the side.

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A2 6. (Amended) The package of claim 22, wherein the second peripheral wall includes a region which is formed from a second material which is impermeable to the first and second components but is permeable to water and to solutions  
5 containing dissolved components.

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7. The package of claim 6, wherein the second peripheral wall defines a hemisphere and is formed from the second material.

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8. (Amended) A single use package for holding a dry composition which forms an anti-microbial solution when mixed with water, the package comprising:

A3 5 a side wall;  
a bottom wall across a lower portion of the sidewall;  
a top cover across an upper portion of the side wall, the top cover defining a porous portion which is impermeable to the dry composition but is permeable to water  
10 and to the solution; and  
an indicator on the top cover which exhibits a detectable change on exposure to the anti-microbial solution.

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9. The package of claim 1, wherein the porous  
15 portion is formed from a material selected from the group  
consisting of non-woven polypropylene web, woven  
polypropylene, woven polyethylene, non-woven polyethylene,  
nylon, rayon, rigid porous media, porous plastic, mesh, and  
combinations thereof.

10. The package of claim 2, wherein the  
decontaminant includes peracetic acid and the first  
component includes acetylsalicylic acid and the second  
component includes sodium perborate.

11. The package of claim 1, wherein the indicator  
includes an oxidizable species which changes color on  
prolonged contact with the solution.

12. The package of claim 1 wherein the indicator  
is specific for the decontaminant.

13. The package of claim 1, wherein the indicator  
is less sensitive to pH than to the decontaminant.

14. The package of claim 1, wherein the indicator  
is impregnated into the porous portion in the form of an  
ink.

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15. (Amended) A package for holding an anti-  
microbial concentrate which forms an anti-microbial solution  
when mixed with water, the package releasing anti-microbial  
concentrate at a selected time in an anti-microbial cycle,

A4 5 the package comprising:

a porous portion which is impermeable to the anti-  
microbial concentrate but is permeable to water and to the  
solution; and

10 an indicator on the porous portion which exhibits  
a detectable color change when exposed to a preselected

A4 minimum concentration of the decontaminant for a preselected minimum period of time to indicate the formulation of an anti-microbial solution capable of effecting anti-microbial decontamination.

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16. The package of claim 1, wherein the decontaminant is peracetic acid and the indicator provides a detectable color change when the peracetic acid is at a concentration of about 900 ppm or above for a preselected  
5 period of time.

17. The package of claim 1, wherein the decontaminant is peracetic acid and the indicator is selected from the group consisting of crystal violet, bromocresol green, bromothymol blue, bromothymol green,  
5 methyl purple, and combinations thereof.

18. The package of claim 17, wherein the indicator includes crystal violet.

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Subcl 2 19. (Amended) An anti-microbial system comprising:

a well for receiving a single use package including:

5 at least one cup which holds an anti-microbial concentrate,

A5 a porous portion which is permeable to water and to an anti-microbial solution formed from the anti-microbial concentrate and the water,  
10 and

an indicator on the porous portion which exhibits a detectable change on exposure to a decontaminant in the solution;

a source of water connected with the well for  
15 mixing with the anti-microbial concentrate and forming the anti-microbial solution;

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AS 20 a microbial decontamination chamber connected with the well for receiving the anti-microbial solution, the well, the porous region, and the chamber forming a recirculating fluid flow path for the anti-microbial solution, whereby the recirculating anti-microbial solution passes over the indicator.

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20. A package for releasing an anti-microbial composition into a flowing liquid, the package comprising:

a side wall having a first opening at a first end and a second opening at a second end such that the liquid  
5 flows through the first opening into the package and out through the second opening;

a layer of porous material spanning one of the first and second openings such that the liquid flows through the porous material layer;

10 an anti-microbial source disposed within the package for releasing the anti-microbial composition into the flowing liquid to form an anti-microbial solution;

an indicator on the porous material layer which changes color in response to contact with the anti-microbial  
15 solution, a degree of color change varying in accordance with (i) a concentration of an anti-microbial agent in the solution contacting the indicator, and (ii) a duration that the solution contacts the indicator such that the degree of color change of the indicator is indicative of duration of  
20 contact and the concentration of the anti-microbial agent in the contacting solution.

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21. (Amended) A method comprising:

AL 5 flowing water through a cartridge containing a composition to form a decontaminant solution from the composition and the water, the cartridge including a porous region impregnated with an indicator, the indicator exhibiting a preselected detectable change when contacted with a decontaminant solution and at a concentration of a

decontaminant in the solution sufficient to effect decontamination of items;

A 6 10 circulating the decontaminant solution in a fluid flow path comprising a microbial decontamination chamber, in which the items to be decontaminated are positioned, and the porous region;

examining the indicator for the detectable change.

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22. (New) The package of claim 2, wherein the package further includes:

an outer, first cup including a first peripheral wall with an opening at an end, the first peripheral wall  
5 being at least selectively water transmissive;

An 10 an inner, second cup including a second peripheral wall, the second peripheral wall having a water permeable portion, the first and second cups being configured such that the second peripheral wall abuts and is connected to the first cup adjacent the end of the first peripheral wall;

a top cover covering the openings in the first and second cups, such that the first compartment is defined in the first cup and the second compartment is defined in the second cup.

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